

Appendix D

INCIDENCE OF IMPUTATION FOR THE 1963 CENSUS OF MINERAL INDUSTRIES

At the end of the census collection and follow-up period, some small reports still have not been received. Even though the Census Bureau at this point initiates legal proceedings on a selected basis to enforce receipt of such reports, these proceedings are slow and publication of the census results cannot await their completion.

Estimates are included in the 1963 census tabulations for some small respondents on the basis of payroll information available for such establishments from the Social Security Administration records. The estimated figures are based, in general, on the relations between reported figures for other small establishments in the same industry.

In order to evaluate the significance of such estimates, the tables in this appendix have been developed. No comparable tables have been prepared on such estimates for earlier years. Although the number of establishments for which such estimates are made is significant, the data estimated usually represent a small proportion of the totals published. As indicated in the attached table A, the value of shipments and receipts for such largely estimated reports amounted to only 3.0 percent of the total value of shipments and receipts for all industries in 1963, to 4.6 percent for metal mining, to

percent for anthracite mining, to 2.3 percent for bituminous coal and lignite mining, to 2.5 percent for oil and gas extraction, and to 2.8 percent for nonmetallic minerals mining. The major group for which these estimates are most significant both in number of establish-

ments and aggregate value of shipments and receipts is oil and gas extraction. In terms of value of shipments, the most significant estimates are for Industry 1311, Crude Petroleum and Natural Gas, for which the percent of value of shipments and receipts estimated is 3.7, with 3.1 percent estimated for the crude petroleum subindustry and 7.1 percent for the natural gas subindustry. Since this is the largest industry in the minerals census and quite significant in a number of areas, information on the extent of imputations of the above type was tabulated for it by geographic division and selected States (table B). It will be noted that the percent of value of shipments and receipts estimated ranges from only 1.4 percent for the Pacific Division to 11.1 percent for the South Atlantic Division. It amounts to only 2 percent for Louisiana and to 4 percent for Texas, the two largest oil and gas producing States.

The effect of such estimates on the drilling statistics is of particular interest. Table C shows the relative magnitude of imputations in terms of number of wells, footage, and cost of

drilling and equipping wells by divisions and selected States. These figures appear separately for oil wells, gas wells, dry holes, and service wells.

The table shows that at the U.S. level, the percent of cost of drilling and equipping wells so estimated amounted to 4.0 percent for all wells.

to 2.6 percent for oil wells, to 4.7 percent for gas wells, to 6.1 percent for dry holes, and to 1.1 percent for service wells. Such estimates, of course, appear more significant when data for the 200 largest companies are excluded.

Hence, the estimates are shown also in this manner. In order to evaluate the nature of imputations included, these imputations are shown separately in terms of average footage drilled per well and cost of drilling and equipping wells per foot in the last two columns of table C. The estimates were made on the basis of detailed information reported by the smaller companies. It will be noted that the average depths and average costs per foot estimated are fairly close to the final averages for wells reported by all companies excluding the 200 largest.